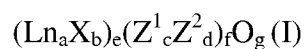


CLAIMS

1. (Currently amended) An anode for ~~use in~~ a solid oxide fuel cell, wherein at least a part of the anode is a double perovskite oxide material having the general formula I:



wherein Ln is selected from the group consisting of Y, La, a Lanthanide series element, and any combination thereof and X also represents an element occupying the A site of a perovskite oxide and is selected from the group consisting of Sr, Ca and Ba, and Z^1 and Z^2 represent different elements occupying the B site of a perovskite oxide and are selected from the group consisting of Cr, Mn, Mg and Fe, and wherein a has a value from 0 to 1, b has a value of from 1 to 0, and each of c and d has a value of from 0.25 to 0.75, provided that a + b has a value of 1, and c + d, has a value of 1, and wherein e has a value of from 0.8 to 1, wherein f has a value of from 0.8 to 1, and g has a value of from 2.5 to 3.2; said material optionally including at least one dopant.

2. (Previously amended) The anode of claim 1 wherein Z^1 and Z^2 represent Cr and Mn, respectively.

3. (Previously amended) The anode of claim 1 wherein X represents Sr.

4. (Previously amended) The anode of claim 1 wherein said at least one dopant is a B site dopant selected from the group consisting of V, Fe, Cu, Co, Ru, Ni, Pd, Ce, Ti, Nb, Mo and Mg.

5. (Previously amended) The anode of claim 4 wherein the B site dopant is present at a level of not more than 20%.

6. (Previously amended) The anode of claim 5 wherein the B site dopant is present at a level of from 5 to 20%.

7. (Previously amended) The anode of claim 1 wherein in general formula I each of c and d has a value of at least 0.4.

8. (Previously amended) The anode of claim 1 wherein at least 30% of the B sites are occupied by a third element Z^3 .

9. (Previously amended) The anode of claim 1 wherein, in general formula I, a has a value of from 0.7 to 0.9.

10. (Previously amended) The anode of claim 9 wherein, in general formula I, a has a value of from 0.72 to 0.85.

11. (Previously amended) The anode of claim 1 in which said double perovskite oxide material has a porosity of at least 20%.

12. (Previously amended) The anode of claim 11, in which said double perovskite oxide material has a porosity of from 40 to 50%.

13. (Previously amended) An SOFC having an anode or functional layer of an anode of claim 1.

14. (Previously amended) An assembly for use in an SOFC, said assembly including an anode as defined in claim 1.

15-19 (Canceled)

20. (Previously amended) A method of oxidising a fuel in an SOFC, comprising the steps of:

- a) providing an SOFC having an anode as claimed in claim 1; and
- b) oxidizing said fuel in said SOFC.

21. (Previously presented) A method as claimed in claim 20 wherein is used a fuel selected from the group consisting of hydrogen; a hydrocarbon fuel compound; a hydrocarbon based fuel compound; a non-hydrocarbon hydride fuel compound, and at least partial reformations thereof.

22. (Previously amended) The anode of claim 1 wherein, in general formula I, b has a value of from 0.25 to 0.75.